

## CLAIMS

We claim:

1. A method for an electronic programming guide (EPG) comprising:  
providing a plurality of individual image areas in an EPG display;  
prompting a viewer to select at least one channel to display in one of the individual image areas; and  
displaying a reduced video image of real-time programming in each of the individual image areas, wherein the reduced video image is associated with the selected channel.
2. The method of claim 1, wherein the reduced video image is a snapshot, the snapshot having been captured from a video stream associated with the selected channel.
3. The method of claim 2, wherein the snapshot is captured by a shutter function, the shutter function having been triggered after detecting a scene change in the video stream.
4. The method of claim 2, wherein the video stream from which the snapshot is captured has been decoded until the video stream is steady.
5. The method of claim 4, wherein a new snapshot is captured to update the previous snapshot within a number of seconds, the number of seconds depending on how many of the individual image areas are provided.

6. The method of claim 3, wherein the snapshot is determined to be a most presentable snapshot captured from the video stream.

7. The method of claim 6, wherein the snapshot is determined to be the most presentable snapshot when the snapshot has a best contrast.

8. The method of claim 6, wherein the snapshot is determined to be the most presentable snapshot when the snapshot has a median brightness.

9. The method of claim 6, wherein the snapshot is determined to be the most presentable snapshot when the snapshot has a most color saturation.

10. The method of claim 6, wherein the most presentable snapshot is filtered to represent the real-time programming from the selected channel in a best manner.

11. The method of claim 10, wherein the snapshot is filtered by storing the snapshot in a black and white format.

12. The method of claim 10, wherein the snapshot is filtered by a one of enhancing or reducing a contrast of the snapshot.

13. The method of claim 10, wherein the snapshot is filtered by a one of enhancing or reducing a color saturation of the snapshot.

14. The method of claim 1, wherein the reduced video image is a selected one of a plurality of thumbnail video streams available on a preview channel, the selected thumbnail video stream associated with the selected channel.

15. The method of claim 1, wherein the selected thumbnail video stream is associated with the selected channel by an identifying header that encapsulates the selected thumbnail video stream.

16. The method of claim 1, wherein the individual image area comprises at least one surface, and the reduced video image is bound to at least a portion of the at least one surface using a 3D graphics pipeline.

17. An image-oriented electronic programming guide (EPG) apparatus comprising:

- a tuner to tune to a selected channel to receive a video stream;
- a scene detector, coupled to the tuner, to detect a scene change in the video stream;
- a shutter function, coupled to the scene detector, to capture a snapshot of the video stream when the scene change is detected; and
- an EPG, coupled to the tuner, to display the snapshot in an individual image area associated with the selected channel.

18. The image-oriented EPG apparatus of claim 17, further comprising a decoder, coupled to the tuner, to decode the video stream until the video stream is steady.

19. The image-oriented EPG apparatus of claim 17, wherein the shutter function is capable of capturing a new snapshot within a number of seconds, the number of seconds depending on how many of the individual image areas are provided on the video display.

20. The image-oriented EPG apparatus of claim 17, further comprising an image improver, coupled to the shutter function, to select for display the snapshot determined to be a most presentable snapshot captured from the video stream.

21. The image-oriented EPG apparatus of claim 17, wherein the image improver determines the snapshot to be the most presentable when the snapshot has a best contrast.

22. The image-oriented EPG apparatus of claim 17, wherein the image improver determines the snapshot to be the most presentable snapshot when the snapshot has a median brightness.

23. The image-oriented EPG apparatus of claim 17, wherein the image improver determines the snapshot to be the most presentable snapshot when the snapshot has a most color saturation.

24. The image-oriented EPG apparatus of claim 20, further comprising a filter to filter the most presentable snapshot to represent the real-time programming from the selected channel in a best manner.

25. The image-oriented EPG apparatus of claim 24, wherein the filter stores the snapshot in a black and white format.

26. The image-oriented EPG apparatus of claim 24, wherein the filter enhances the snapshot's contrast.

27. The image-oriented EPG apparatus of claim 24, wherein the filter reduces the snapshot's contrast.

28. The image-oriented EPG apparatus of claim 24, wherein the filter enhances the snapshot's color saturation.

29. The image-oriented EPG apparatus of claim 24, wherein the filter reduces the snapshot's color saturation.

30. The image-oriented EPG apparatus of claim 17, wherein the individual image area comprises at least one surface, and the snapshot is bound to at least a portion of the at least one surface using a 3D graphics pipeline.

31. An article of manufacture comprising:

a machine-accessible medium including data that, when accessed by a machine, causes the machine to:

provide a plurality of individual image areas in an EPG display;

prompt a viewer to select at least one channel to display in a one of the individual image areas; and

display a reduced video image of real-time programming in each of the individual image areas, wherein the reduced video image is associated with the selected channel.

32. The article of manufacture of claim 31, wherein the reduced video image is a snapshot and wherein the data further causes the machine to capture the snapshot from a video stream associated with the selected channel.

33. The article of manufacture of claim 31, wherein the data further causes the machine to detect a scene change in the video stream and trigger a shutter function to capture the snapshot.

34. The article of manufacture of claim 31, wherein the data further causes the machine to decode the video stream until the video stream is steady.

35. The article of manufacture of claim 31, wherein the data further causes the machine to capture a new snapshot to update the previous snapshot within a number of seconds, the number of seconds depending on how many of the individual image areas are provided.

36. A method of providing an enhanced preview video channel comprising:

converting a video stream having full resolution to a thumbnail resolution;

encapsulating the converted video stream with an identifying header;  
multiplexing the converted video stream with other converted video streams into a  
preview channel; and  
transmitting the preview channel to a receiver.

37. The method of claim 36, further comprising displaying the converted video  
stream on a display coupled to the receiver based on the identifying header.

38. The method of claim 36, wherein the identifying header associates the converted  
video stream with a channel identification.